



## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2021-0269; Project Identifier MCAI-2020-01417-T]

RIN 2120-AA64

**Airworthiness Directives;** Airbus Canada Limited Partnership (Type Certificate

Previously Held by C Series Aircraft Limited Partnership (CSALP); Bombardier, Inc.)

Airplanes

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for certain

Airbus Canada Limited Partnership Model BD-500-1A10 and BD-500-1A11 airplanes.

This proposed AD was prompted by reports of in-flight engine shutdowns (IFESs);

investigation results indicated that this could be caused by high altitude climbs at higher

thrust settings on engines with certain thrust ratings. This proposed AD would require

amending the existing airplane flight manual (AFM) to incorporate a new limitation and

revise certain normal procedures, as specified in a Transport Canada Civil Aviation

(TCCA) AD, which is proposed for incorporation by reference. The FAA is proposing

this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45

DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43

and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For TCCA material that will be incorporated by reference (IBR) in this AD, contact the TCCA, Transport Canada National Aircraft Certification, 159 Cleopatra Drive, Nepean, Ontario, K1A 0N5, CANADA; telephone 888-663-3639; email AD-CN@tc.gc.ca; Internet <https://tc.canada.ca/en/aviation>. For Airbus material that will be IBR in this AD, contact Airbus Canada Limited Partnership, 13100 Henri-Fabre Boulevard, Mirabel, Québec J7N 3C6, Canada; telephone 450-476-7676; email [a220\\_crc@abc.airbus](mailto:a220_crc@abc.airbus); Internet <http://a220world.airbus.com>. You may view this IBR material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0269.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0269; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

**FOR FURTHER INFORMATION CONTACT:** Thomas Niczky, Aerospace Engineer, Avionics and Electrical Systems Section, FAA, New York ACO Branch, 1600 Stewart

Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7347; fax 516-794-5531; email 9-avs-nyaco-cos@faa.gov.

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2021-0269; Project Identifier MCAI-2020-01417-T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend the proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposed AD.

### **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Thomas Niczky,

Aerospace Engineer, Avionics and Electrical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7347; fax 516-794-5531; email 9-avs-nyaco-cos@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

## **Background**

TCCA, which is the aviation authority for Canada, has issued TCCA AD CF-2020-41, issued October 15, 2020 (TCCA AD CF-2020-41) (also referred to as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for certain Airbus Canada Limited Partnership Model BD-500-1A10 and BD-500-1A11 airplanes.

This proposed AD was prompted by reports of IFESs; investigations are ongoing to determine the root cause. Investigation results indicated that an IFES could be caused by high altitude climbs at higher thrust settings on engines with certain thrust ratings. The FAA is proposing this AD to provide the flightcrew with information and procedures for operation above 29,000 feet to prevent uncontained failure of an engine during an IFES, which could result in structural damage and reduced structural integrity of the airplane. See the MCAI for additional background information.

## **Related Service Information under 1 CFR Part 51**

TCCA AD CF-2020-41 specifies procedures for amending the applicable AFM to incorporate a new limitation and revise the normal procedures to limit the engine N1 setting for flights above 29,000 feet.

Airbus Canada Limited Partnership has issued Supplement 21 – Operation Above 29000 Feet, of Airbus A220-100 Airplane Flight Manual, Publication BD500-3AB48-22200-00, Issue 016, dated October 16, 2020. This supplement specifies limitations, information, and procedures for operation above 29,000 feet.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **FAA’s Determination and Requirements of this Proposed AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition described in the MCAI referenced above. The FAA is proposing this AD because the FAA evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

### **Proposed AD Requirements**

This proposed AD would require accomplishing the actions specified in TCCA AD CF-2020-41 described previously, as incorporated by reference, except as specified under “Differences Between this Proposed AD and the MCAI” in this NPRM, and except for any differences identified as exceptions in the regulatory text of this AD.

### **Differences Between This Proposed AD and the MCAI**

The MCAI requires a borescope inspection for signs of damage of the 1st stage axial low-pressure compressor (LPC) rotor of each engine, and allows for the optional installation of health management unit reports to monitor N1 exceedances. This proposed AD does not include either provision.

The MCAI also requires amending the AFM by “incorporating the Supplement 21 Operation above 29000 feet from AFM Revision 15-A dated 10 September 2020.” Since the MCAI was issued, Supplement 21 was revised. This proposed AD would require the incorporation of Supplement 21 – Operation Above 29000 Feet, of Airbus A220-100

Airplane Flight Manual, Publication BD500-3AB48-22200-00, Issue 016, dated October 16, 2020.

The MCAI requires operators to “inform all flight crews” of revisions to the AFM, and thereafter to “operate the aeroplane accordingly.” However, this proposed AD would not specifically require those actions as those actions are already required by FAA regulations.

FAA regulations require operators furnish to pilots any changes to the AFM (ex: 14 CFR 121.137, and to ensure the pilots are familiar with the AFM (ex: 14 CFR 91.505). As with any other training requirement, training on the updated AFM content is tracked by the operators and recorded in each pilot’s training record, which is available for the FAA to review.

FAA regulations also require pilots to follow the procedures in the existing AFM including all updates. 14 CFR 91.9 requires that no person may operate a civil aircraft without complying with the operating limitations specified in the AFM. Therefore, including a requirement in this proposed AD to operate the airplane according to the revised AFM would be redundant and unnecessary. Further, compliance with such a requirement in an AD would be impracticable to demonstrate or track on an ongoing basis; therefore, a requirement to operate the airplane in such a manner would be unenforceable.

These differences have been coordinated with TCCA.

### **Explanation of Required Compliance Information**

In the FAA’s ongoing efforts to improve the efficiency of the AD process, the FAA initially worked with Airbus and EASA to develop a process to use certain EASA ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has since coordinated with other manufacturers and civil aviation authorities (CAAs) to use this process. As a result, TCCA AD CF-2020-41

will be incorporated by reference in the FAA final rule. This proposed AD would, therefore, require compliance with TCCA AD CF-2020-41 in its entirety, through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Service information specified in TCCA AD CF-2020-41 that is required for compliance with TCCA AD CF-2020-41 will be available on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0269 after the FAA final rule is published.

### **Interim Action**

The FAA considers this proposed AD interim action. If final action is later identified, the FAA might consider further rulemaking then.

### **Costs of Compliance**

The FAA estimates that this proposed AD affects 42 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

#### **Estimated costs for required actions**

<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
1 work-hour X \$85 per hour = \$85	\$0	\$85	\$3,570

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds

necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:



**Airbus Canada Limited Partnership (Type Certificate Previously Held by C Series Aircraft Limited Partnership (CSALP); Bombardier, Inc.):** Docket No. FAA-2021-0269; Project Identifier MCAI-2020-01417-T.

**(a) Comments Due Date**

The FAA must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected Airworthiness Directives (ADs)**

None.

**(c) Applicability**

This AD applies to Airbus Canada Limited Partnership (type certificate previously held by C Series Aircraft Limited Partnership (CSALP); Bombardier, Inc.) Model BD-500-1A10 and BD-500-1A11 airplanes, certificated in any category, as identified in Transport Canada Civil Aviation (TCCA) AD CF-2020-41, issued October 15, 2020 (TCCA AD CF-2020-41).

**(d) Subject**

Air Transport Association (ATA) of America Code 72, Engines.

**(e) Reason**

This AD was prompted by reports of in-flight engine shutdowns (IFESs); investigation results indicated that this could be caused by high altitude climbs at higher thrust settings on engines with certain thrust ratings. The FAA is issuing this AD to provide the flightcrew with information and procedures for operation above 29,000 feet to prevent uncontained failure of an engine during an IFES, which could result in structural damage and reduced structural integrity of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Requirements**

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, paragraph A., of TCCA AD CF-2020-41.

**(h) Exceptions to TCCA AD CF-2020-41**

(1) Where TCCA AD CF-2020-41 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where paragraph A. of TCCA AD CF-2020-41 requires amending the airplane flight manual (AFM) by “incorporating the Supplement 21 Operation above 29000 feet from AFM Revision 15-A, dated 10 September 2020,” this AD requires amending the existing AFM by incorporating Supplement 21 – Operation Above 29000 Feet, of Airbus A220-100 Airplane Flight Manual, Publication BD500-3AB48-22200-00, Issue 016, dated October 16, 2020.

(3) Where paragraph A. of TCCA AD CF-2020-41 specifies to “inform all flight crews of the new supplement and thereafter operate the aeroplane accordingly,” this AD does not require those actions as those actions are already required by existing FAA operating regulations.

(4) Where paragraphs B. and C. of TCCA AD CF-2020-41 specify procedures for a borescope inspection for signs of damage of the 1st stage axial low-pressure compressor (LPC) rotor of each engine, to be performed after the AFM N1 limitation has been exceeded, this AD does not require that action.

(5) Where paragraph C. of TCCA AD CF-2020-41 describes an optional installation of health management unit reports to monitor N1 exceedances, this AD does not include that option.

**(i) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or Airbus Canada's TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

**(j) Related Information**

(1) For TCCA AD CF-2020-41, contact the TCCA, Transport Canada National Aircraft Certification, 159 Cleopatra Drive, Nepean, Ontario, K1A 0N5, CANADA; telephone 888-663-3639; email AD-CN@tc.gc.ca; Internet <https://tc.canada.ca/en/aviation>. For Airbus service information identified in this AD, contact Airbus Canada Limited Partnership, 13100 Henri-Fabre Boulevard, Mirabel, Québec J7N 3C6, Canada; telephone 450-476-7676; email a220\_crc@abc.airbus; Internet <http://a220world.airbus.com>. You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. This

material may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0269.

(2) For more information about this AD, contact Thomas Niczky, Aerospace Engineer, Avionics and Electrical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7347; fax 516-794-5531; email [9-avs-nyaco-cos@faa.gov](mailto:9-avs-nyaco-cos@faa.gov).

Issued on April 2, 2021.

Lance T. Gant, Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

[FR Doc. 2021-07201 Filed: 4/15/2021 8:45 am; Publication Date: 4/16/2021]